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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,012	12/27/2000	Hiroyuki Nakano	001745	4666

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EXAMINER	
JIMENEZ, MARC QUEMUEL	

ART UNIT	PAPER NUMBER
3726	

DATE MAILED: 04/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/748,012	NAKANO, HIROYUKI	
	Examiner	Art Unit	
	Marc Jimenez	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/19/04 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 1-15** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "wherein a ratio of said glass particles to **the top layer** is a weight ratio of less than 3%" in the last line. It is unclear what this limitation encompasses. Furthermore, this limitation is indefinite because line 5 recites "glass particles are mixed into **at least one of** said primer layer and said top layer".

Claim 2 recites "wherein said glass particles are mixed into **only said primer layer**". This limitation is indefinite because claim 1 recites "wherein a ratio of said glass particles to the top layer is a weight ratio of less than 3%".

Claims 4 and 6 recite "1% or more" which is unclear because claim 1 recites " less than 3%".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1, 3, 4, and 7** are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuyama (JP 57172374 A).

Matsuyama teaches a fixing roller (PURPOSE, line 2 and CONSTITUTION, lines 2-3) comprising a core (CONSTITUTION, lines 1-2, "metallic roller which becomes the base material of the fixing roller"), a primer layer applied on the periphery of the core (CONSTITUTION, lines, 4-5, "a primer is applied as required to increase the adhesive force"), and a fluororesin top layer applied on the periphery of the primer layer (CONSTITUTION, lines 7-15), wherein glass particles are mixed into at least one of the primer layer and the top layer (CONSTITUTION, lines 5-6, "glass fibers are mixed in a fluororesin disperse liquid") and wherein a ratio of the glass particles to the top layer is a weight ration of less than 3%. Applicant

has submitted an English translation of Matsuyama (JP 57172374A). In claim 1, on page 1 of Matsuyama, it is disclosed that the fluororesin layer contains 25 weight % or less of glass fibers. Furthermore, on page 3, lines 9-10, it is disclosed that "While the wear resistance is effectively improved only by adding a small amount, or about 1% of glass fibers, it is more preferable to add at 3 weight % or more to enhance the effect.". Note also the following:

MPEP 2131.03 Anticipation of Ranges

A SPECIFIC EXAMPLE IN THE PRIOR ART WHICH IS WITHIN A CLAIMED RANGE ANTICIPATES THE RANGE

"[W]hen, as by a recitation of ranges or otherwise, a claim covers several compositions, the claim is 'anticipated' if *one* of them is in the prior art." *Titanium Metals Corp. v. Banner,* 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (citing *In re Petering*, 301 F.2d 676, 682, 133 USPQ 275, 280 (CCPA 1962)) (emphasis in original) (Claims to titanium (Ti) alloy with 0.6-0.9% nickel (Ni) and 0.2-0.4% molybdenum (Mo) were held anticipated by a graph in a Russian article on Ti-Mo-Ni alloys because the graph contained an actual data point corresponding to a Ti alloy containing 0.25% Mo and 0.75% Ni and this composition was within the claimed range of compositions.).

It is noted that Matsuyama teaches a specific example of about 1% of glass fibers which is within the claimed range of "less than 3%". Therefore, Matsuyama anticipates the claimed range.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama.

Matsuyama teaches the invention cited above with the exception of the glass particles being mixed into only the primer layer.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, that the glass particles being mixed only to the primer layer is clearly a matter of design choice because applicant has not disclosed that mixing glass particles only to the primer provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with glass particles in the top layer as taught by Matsuyama or with the claimed glass particles being mixed only to the primer layer because glass particles placed in either the top layer only or the primer layer only perform the same function of providing good releasability. It is noted that in Table 3 of applicants specification at page 12, the use of a roll with glass particles mixed only into the primer layer ("2nd embodiment") does not provide an improvement over the embodiment of glass particles is mixed into only the top layer ("1st embodiment"), Matsuyama also teach that the glass particles is mixed to the top layer. In fact, the embodiment with glass particles mixed only into the primer layer ("2nd embodiment") actually produces the worst result according to Table 3 of applicant's specification compared with glass particles mixed only into the top layer (1st embodiment) or glass particles mixed into both the top and primer layers (3rd embodiment).

8. **Claims 5 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama in view of Yakushiji (JP 58017872 A).

Matsuyama teaches the invention cited above with the exception of the glass particles

being mixed into the primer layer.

Yakushiji teaches glass particles (CONSTITUTION, lines 5-8) mixed into a primer layer **2**.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have alternatively provided the invention of Matsuyama with glass particles mixed into the primer layer, in light of the teachings of Yakushiji, in order to reinforce the primer layer as suggested by Yakushiji at lines 7-8 of the CONSTITUTION.

The limitations of claim 6 have been addressed above as being taught by Matuyama.

9. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Matuyama in view of Ream et al. (6,284,373).

Matuyama teach the invention cited above with the exception of the total thickness of the primer layer and the top layer being arranged in up to 30micrometer.

Ream et al. teach a primer layer and top layer being arranged in up to 30micrometer (col. 4, lines 24-34).

It would have been obvious to one of ordinary skill to have made the thickness of the primer layer and the top layer being arranged in up to 30micrometer, in light of the teachings of Ream et al., in order to provide a layer having the desired thickness that is evenly applied to the roll surface and has good releasability.

10. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Matuyama in view of Tsukida et al. (5,450,181) and Takahashi et al. (6,132,815).

Matuyama teach the invention cited above with the exception of the total thickness of the primer layer and the top layer being arranged in up to 30micrometer.

Tsukida et al. teach a fluroresin layer having a thickness of 20micrometer (col. 21, lines 26-27).

Takahashi et al. teach a primer layer having a thickness of 8micrometer (col. 8, lines 47-48).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Matuyama with the appropriate primer layer and top layer thicknesses, in light of the teachings of Tsukida et al. and Takahashi et al., in order to provide a layer having the desired thickness that is evenly applied to the roll surface and has good releasability.

11. **Claims 9-11 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matuyama in view of Jinzai (5,572,275).

Matuyama teaches the invention cited above with the exception of having a fluororesin overtop layer applied to the peripheral surface of the top layer.

Jinzai teaches in fig. 2 a fixing roller **1** which has a fluororesin overtop layer **1a** (see also col. 4, line 19) applied to the peripheral surface of a top layer **1a**. Note that Jinzai also teaches a primer layer **1b** and the top layer **1a** is also a flouroresin layer (PFA).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Matuyama with a fluororesin overtop layer applied to the peripheral surface of the top layer, in light of the teachings of Jinzai, in order to provide an anti-

offset layer (as suggested by Jinzai at col. 4, line 18). Note that Jinzai teaches that the overtop layer **1d** is devoid of the glass particles and the overtop layer **1d** includes PFA (col. 4, line 19).

12. **Claims 12, 13, and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matuyama in view of Jinzai as applied to claims 9, 10, and 14 above, and further in view of Ream et al.

Matuyama/Jinzai teach the invention cited above with the exception of the total thickness of the primer layer, top layer, and the overtop layer being arranged in up to 30micrometer.

Ream et al. teach primer, top, and overtop layers being arranged in up to 30micrometer (col. 4, lines 24-34).

It would have been obvious to one of ordinary skill in the art to have made the thickness of the primer top, and overtop layers being arranged in up to 30micrometer, in light of the teachings of Ream et al., in order to provide a layer having the desired thickness that is evenly applied to the roll surface and has good releasability.

13. **Claims 12, 13, and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matuyama in view of Jinzai as applied to Claims 9, 10, and 14 respectively above, and further in view of Tsukida and Takahashi et al.

Matuyama/Jinzai teach the invention cited above with the exception of the total thickness of the primer, top, and overtop layers being arranged in up to 30micrometer.

Tsukida et al. teach a fluororesin layer having a thickness of 20 micrometer (col. 21, lines 26-27).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have made the thickness of the primer, top, and overtop layers being arranged in up to 30micrometer, in light of the teachings of Tsukida and Takahashi et al., in order to provide a layer having the desired thickness that is evenly applied to the roll surface and has good releasability.

Response to Arguments

14. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

15. Applicant submitted a translation of Matsuyama. It has been determined that Matsuyama actually anticipates claims 1, 3, 4, and 7 under 35 U.S.C. 102(b) rather than under obviousness under 35 U.S.C. 103(a) because Matsuyama teach of the claimed limitations. Specifically, Matsuyama gives a working example of 1% glass fibers on page 3, lines 9-10. The examiner was only aware of this teaching after the submission of the English translation of Matsuyama. Therefore, the 35 U.S.C. 103(a) rejection in the last office action (final rejection) has been changed to a 35 U.S.C. 102(b) rejection.

16. The declaration filed under 37 C.F.R. 1.132 is moot because the rejection has been changed to anticipation under 35 U.S.C. 102(b).

17. Under the heading "Rejections under 35 U.S.C. 102 - Anticipation" on page 2 of applicant's response filed 3/19/04, applicant states that:

> "The examiner asserts that Matsuyama teaches "less than 25%", which may anticipate Applicant's claimed range of "less than 3%". Applicant agrees that Matsuyama teaches

"less than 25%", but notes that the reference does not disclose any working examples in the claimed range of less than 3%."

It is noted, however, that Matsuyama clearly discloses a working example of 1% on page 3, lines 9-10. Also, Matsuyama discloses a working example of 3% which falls in the claimed range of less than 3%. Therefore, the claimed range of "less than 25%" as taught by Matsuyama clearly anticipates the claimed range of "less than 3%" because there is a specific example in Matsuyama which is within the claimed range. Matsuyama gives a specific example in the claimed range and therefore anticipates the claimed range of "less than 3%". Note also the following:

MPEP 2131.03 Anticipation of Ranges

A SPECIFIC EXAMPLE IN THE PRIOR ART WHICH IS WITHIN A CLAIMED RANGE ANTICIPATES THE RANGE

"[W]hen, as by a recitation of ranges or otherwise, a claim covers several compositions, the claim is 'anticipated' if *one* of them is in the prior art." *Titanium Metals Corp. v. Banner,* 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (citing *In re Petering*, 301 F.2d 676, 682, 133 USPQ 275, 280 (CCPA 1962)) (emphasis in original) (Claims to titanium (Ti) alloy with 0.6-0.9% nickel (Ni) and 0.2-0.4% molybdenum (Mo) were held anticipated by a graph in a Russian article on Ti-Mo-Ni alloys because the graph contained an actual data point corresponding to a Ti alloy containing 0.25% Mo and 0.75% Ni and this composition was within the claimed range of compositions.).

Applicant cites a section of MPEP 2131.03, however, the section applicant cites is under the heading "PRIOR ART WHICH TEACHES A RANGE WITHIN, OVERLAPPING, OR TOUCHING THE CLAIMED RANGE ANTICIPATES IF THE PRIOR ART RANGE DISCLOSES THE CLAIMED RANGE WITH "SUFFICIENT SPECIFICITY"". However, this section is for prior art which has "**no specific examples** falling within the claimed range,...". Matsuyama gives a **specific example of 1%**, therefore, Matsuayama anticipates the claimed

range under the heading "A SPECIFIC EXAMPLE IN THE PRIOR ART WHICH IS WITHIN A CLAIMED RANGE ANTICIPATES THE RANGE" of MPEP 2131.03.

18. It is noted that on page 3, lines 9-10, Matsuyama clearly discloses improving "wear resistance" by adding even a small amount of glass fibers (1%).

Contact Information

19. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to CustomerService3700@uspto.gov.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is **703-306-5965**. The examiner can normally be reached on **Monday-Friday, between 5:30 am- 2:00 pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 for regular

communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.

Allowed Files & Publication	(703) 308-6789 or (888) 786-0101
Assignment Branch	(703) 308-9723
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